HITACHI

SOLID STATE COLOR TV
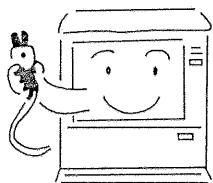
27CX29B

OPERATING GUIDE
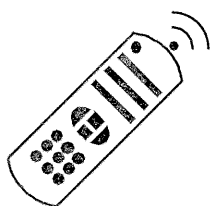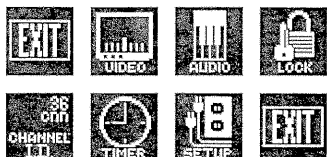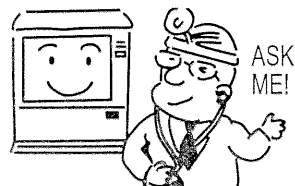
Follow all warnings and instructions marked on this television receiver.

⚡	**CAUTION**
	RISK OF ELECTRIC SHOCK DO NOT OPEN

⚠

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of a sufficient magnitude to constitute a risk of electric shock to persons.

**CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

⚠ The exclamation point within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

⚠ **CAUTION:** Never remove the back cover of the set as this can expose you to very high voltages and other hazards. If the set does not operate properly, unplug the set and call your authorized dealer or service shop. To prevent fire or shock hazard, do not expose this television system to rain or moisture.

NOTE: This television receiver will display closed captioning, ([cc] or ▢), in accordance with paragraph 15.119 of the FCC rules. Model and serial numbers are indicated on back side of the set.

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Hitachi Home Electronics (America), Inc. may void the user's authority to operate the equipment.

POWER SOURCE

*   This solid state color TV is designed to operate on 120 volts 60Hz, AC household current.
*   Insert power cord into a 120 volt 60Hz outlet.
*   To prevent electric shock, do not use the television's plug with an extension cord, receptacle, or other outlet unless the blades and ground terminal can be fully inserted to prevent blade exposure.
*   Never connect the TV to 50Hz, direct current, or anything other than the specified voltage.

IMPORTANT SAFEGUARDS

CAUTION:
*   Read all of these instructions.
*   Save these instructions for later use.
*   Follow all warnings and instructions marked on the television receiver.

SAFETY POINTS YOU SHOULD KNOW ABOUT YOUR HITACHI TELEVISION RECEIVER

Our reputation has been built on the quality, performance, and ease of service of HITACHI television receivers.

Safety is also foremost in our minds in the design of these units. To help you operate these products properly, this section illustrates safety tips which will be of benefit to you. Please read it carefully and apply the knowledge you obtain from it to the proper operation of your HITACHI television receiver.

Please fill out your warranty card and mail it at once to HITACHI. This will enable HITACHI to notify you promptly in the improbable event that a safety problem should be discovered in your product model.

FOR YOUR PERSONAL SAFETY

1. This television set is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
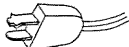
2. When the power cord or plug is damaged or frayed, unplug the television set from the wall outlet and refer servicing to qualified service personnel.
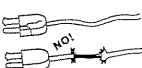
3. Do not overload wall outlets and extension cords as this can result in fire or electric shock.

4. Do not allow anything to rest on or roll over the power cord, and do not place the TV where the power cord is subject to traffic or abuse. This may result in a shock or fire hazard.

5. Do not attempt to service the television set yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

6. Never push objects of any kind into the television's cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the television set.
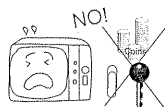
7. If the television set has been dropped or the cabinet has been damaged, unplug the television set from the wall outlet and refer servicing to qualified service personnel.
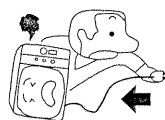
8. If liquid has been spilled into the television set, unplug it from the wall outlet and refer service to qualified service personnel.

9. Do not subject your television set to impact of any kind. Be careful not to damage the picture tube surface.

10. Unplug the television set from the wall outlet before cleaning. Use a damp cloth for cleaning. Do not use liquid or aerosol cleaners.

11-1. Do not place the television set on an unstable cart, stand, or table. The television set may fall, causing serious injury to a child or an adult, and serious damage to the appliance. Use only with a cart or stand recommended by the manufacturer, or sold with the television set. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.

11-2. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
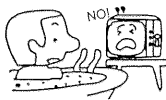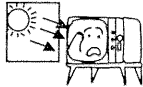
PROTECTION AND LOCATION OF YOUR TELEVISION SET

12. Do not use the television set near water, for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.
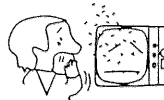
   - Never expose the set to rain or water. If the set has been exposed to rain or water, unplug set from wall outlet and refer to qualified service personnel.

13. Choose a place where light (artificial or sunlight) does not shine directly on the screen.

14. Avoid dusty places, since accumulated dust inside the chassis may cause failure of the set when high humidity persists.
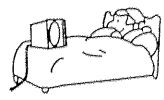
15. The set has slots or openings in the cabinet for ventilation purposes which provide reliable operation of the receiver and protect the TV from overheating. These openings must not be blocked or covered.
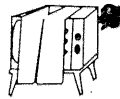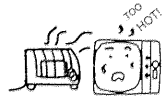
   - Never cover the slots or openings with cloth or other material.

   - Never block the bottom ventilation slots of the set by placing it on a bed, sofa, rug, etc.

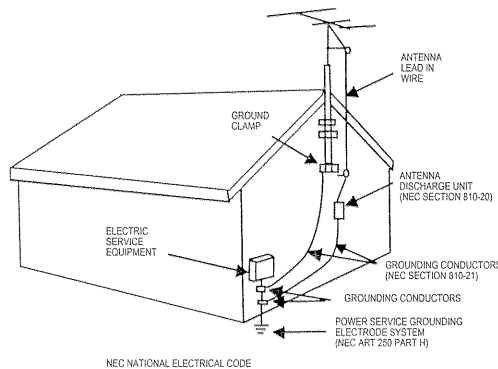   - Never place the set near or over a radiator or heat register.

   - Never place the set in a "built-in" enclosure, unless proper ventilation is provided.

PROTECTION AND LOCATION OF YOUR TELEVISION SET

16-1. If an outside antenna is connected to the television set, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, NFPA No. 70-1975, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit connection to grounding electrode, and requirements for the grounding electrode.

16-2. Note to CATV system installer: (Only for television sets with CATV reception). This reminder is provided to call CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

ANTENNA
LEAD IN
WIRE

GROUND
CLAMP

ANTENNA
DISCHARGE UNIT
(NEC SECTION 810-20)

ELECTRIC
SERVICE
EQUIPMENT

GROUNDING CONDUCTORS
(NEC SECTION 810-21)

GROUNDING CONDUCTORS

POWER SERVICE GROUNDING
ELECTRODE SYSTEM
(NEC ART 250 PART H)

NEC NATIONAL ELECTRICAL CODE

EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE INSTRUCTIONS.

17. An outside antenna system should not be located in the vicinity of overhead power lines or other electrical lights or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
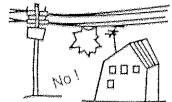
18. For added protection for the television set during a lightning storm, or when it is unused for long periods of time, unplug it from the wall outlet and disconnect antenna. This will prevent damage due to lightning and power-line surges.
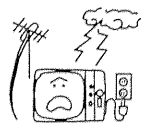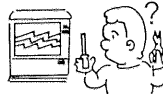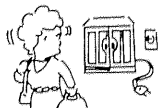
OPERATION OF YOUR TELEVISION SET

19. This television set should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply at your home, consult your television dealer or local power company. For television sets designed to operate from battery power, refer to the operating instructions.
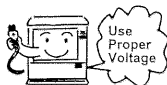
20. If the television set does not operate normally by following the operating instructions, unplug the television set from the wall outlet and refer servicing to qualified service personnel. Adjust only those controls that are covered in the instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified service technician to restore the television set to normal operation.

21. If your television set is to remain unused for a period of time, (such as when going on a holiday), turn the television set OFF and unplug it from the wall outlet.

IF THE TELEVISION SET DOES NOT OPERATE PROPERLY

22. If you are unable to restore normal operation by following the detailed procedure in your operating instructions, do not attempt any further adjustments. Unplug the set and call your dealer or service technician.

23. Whenever the television set is damaged or fails, or if there is a distinct change in performance that indicates a need for service, unplug the set and have it checked by a qualified service technician.

24. It is normal for some television sets to make occasional snapping or popping sounds, particularly when being turned on or off. If the snapping or popping is continuous or frequent, unplug the set and consult your dealer or service technician.
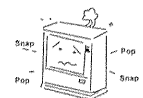
FOR SERVICING AND MODIFICATION

25. Do not use attachments not recommended by the television set manufacturer as they may cause hazards.
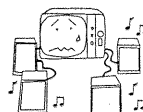
26. When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

27. Upon completion of any service or repairs to the television set, ask the service technician to perform routine safety checks to determine that the television is in safe operating condition.

Congratulations on Your New Purchase

Your new television features all solid state components. It is designed to give you many years of enjoyment. It was thoroughly tested and adjusted at the factory for best performance.

In order for you to take full advantage of your new television, please read and follow the installation and operating instructions contained in this manual.

Customer's Record

The model and serial number of this product may be found on its back cover. You should note the model and serial numbers in the space provided and retain this book as a permanent record of your purchase to aid in identification in the event of theft or loss.

Care and Cleaning

Picture Tube (Turn TV off)

Use a mild soap solution or window cleaner and a clean cloth. DO NOT USE ABRASIVE CLEANERS. Avoid excessive moisture and wipe dry.

Plastic Cabinets

Wipe the cabinet with a soft cloth dampened with water or mild detergent solution and wipe dry with a soft clean cloth. Avoid excessive moisture. Do not use benzene, thinners or other petroleum-based cleaners.

Remote Control

To clean, wipe with a soft cloth slightly moistened with a mild detergent then wipe dry with a soft clean cloth. Do not use benzene, thinners or other petroleum-based cleaners to clean the remote control.

Television Location

This unit is intended to be used with an optional stand or entertainment center. Consult your dealer for available options. Locate for comfortable viewing. Avoid placing where sunlight or other bright light (including reflections) will fall on the screen. Use of some types of fluorescent lighting may reduce remote control transmitter range.

Adequate ventilation is essential to prevent internal component failure. Keep away from areas of excessive heat or moisture. To insure optimum color purity, do not position magnetic equipment (motors, fans, other speakers, etc.) nearby.

Optional External Equipment Connections

Audio/Video connections between components can be made with shielded video and audio cables. For best performance, video cables should utilize 75 ohm coaxial shielded wire. Cables are available from your dealer or electronic supply house.

Use appropriate input and output connectors that match your component connectors, and avoid long cables to minimize interference.

AC Power Supply Cord

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT OF AC OUTLET AND FULLY INSERT. DO NOT USE A PLUG WITH A RECEPTACLE OR OTHER OUTLET UNLESS THE BLADE CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.
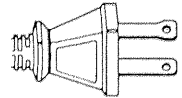
Polarized Plug

Remote Control Battery Installation

Batteries: Use two "AA" batteries.
1. Remove the battery compartment cover on back of the remote.
2. Install the batteries in the battery compartment. (Polarity (+) or (-) must be correct.)
3. Reattach the battery cover.

NOTE:

For frequent remote control users, replace old batteries with alkaline batteries for longer life.

Precaution on Battery Use

Incorrect installation can cause battery leakage and corrosion that will damage the remote control.

Observe the Following Precautions:
1. Batteries must be replaced in pairs.
2. Do not combine a used battery with a new one.
3. Do not mix battery types (Example: "zinc carbon" with "alkaline").
4. Do not attempt to charge, short-circuit, disassemble, heat or burn used batteries.
5. Battery replacement is necessary when remote control reacts sporadically or stops operating the television.
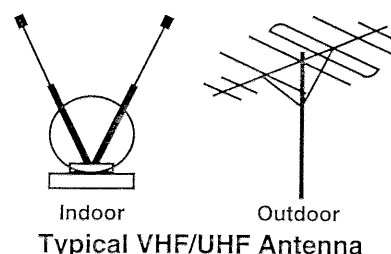
Battery Compartment
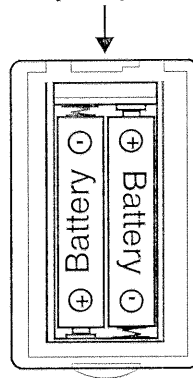
To Remove Cover Push In And Up
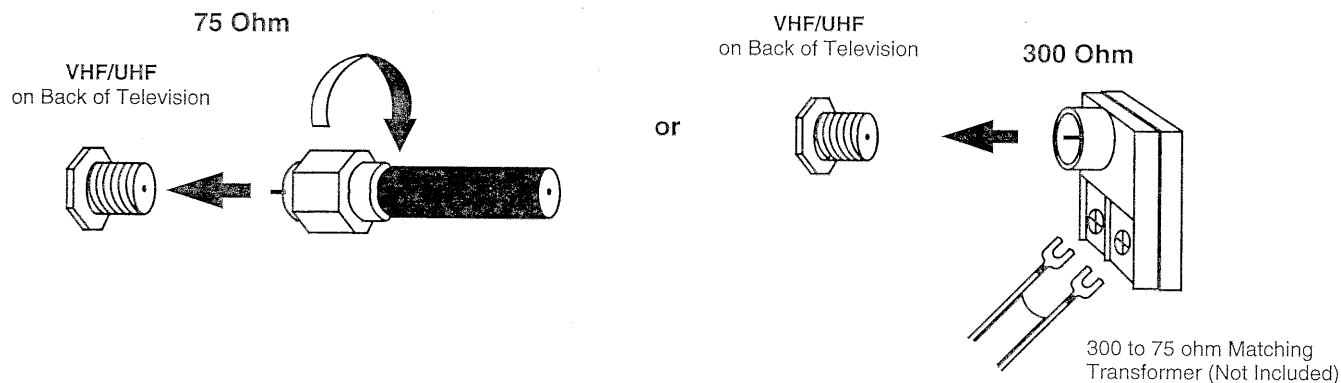On Catch With A Narrow Object
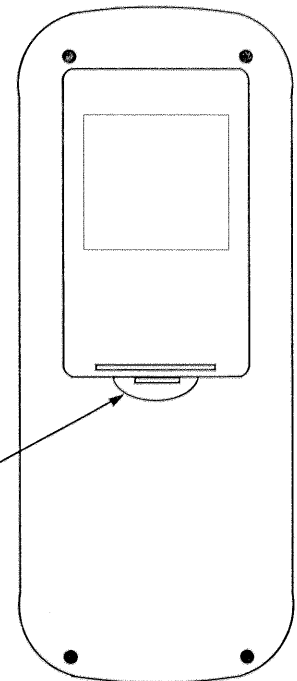
Antenna/Cable Connections

Antenna Connection - For proper reception of VHF/UHF channels, an external antenna is required. For best reception an outdoor antenna is recommended.
**Antenna must be selected as your signal source.** (Refer to the Signal Source section located in the Set-Up menu).

Indoor   Outdoor
**Typical VHF/UHF Antenna**

Incoming Cable from Home Antenna

75 Ohm

VHF/UHF
on Back of Television

VHF/UHF
on Back of Television   **300 Ohm**

or

300 to 75 ohm Matching
Transformer (Not Included)

Cable Connection - For reception of cable channels, connect the cable supplied by your local cable company. **CATV must be selected as your signal source.** (Refer to the Signal Source section located in the Set-Up menu).

Incoming Cable from Cable Company

75 Ohm

VHF/UHF
on Back of Television
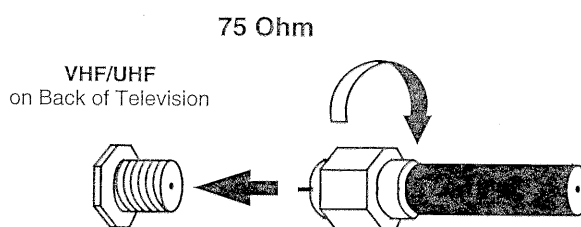
NOTE: Certain cable systems offset some channels to reduce interference or have premium (scrambled) channels. A cable converter box is required for proper reception. Check with your local cable company for compatibility requirements.

Other Video Equipment

VCRs, video disc players, computers, video game equipment, and SAT equipment can also be connected to the antenna input connection.

Optional Equipment Connection and Operation

To Audio AMP Connection (Stereo)

To auxiliary input

AUDIO VIDEO

ANT

R ⊥ L

TO AUDIO AMP

S-VIDEO

INPUT 1

TERMINALS ON BACK OF TV
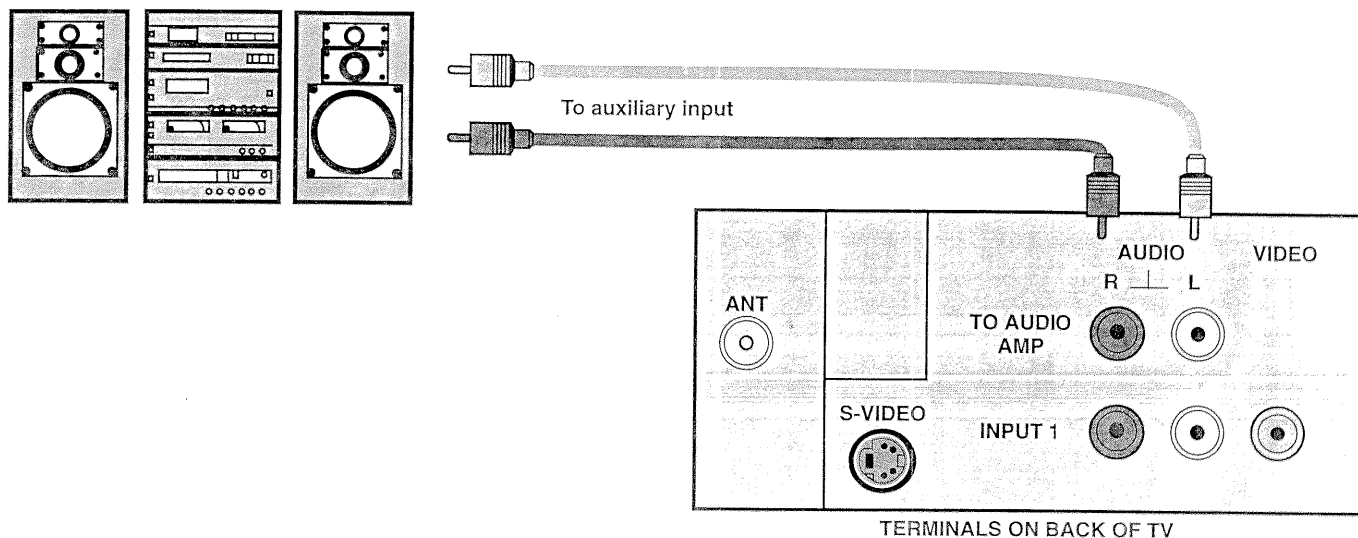
- ## To Audio AMP

Connect to an external audio amp auxiliary input for monitoring sound through a stereo system.

NOTE: "TO AUDIO AMP" terminals cannot be used for external speakers.

Operation - When an audio amp is connected to "TO AUDIO AMP" terminals as shown:

1. Select SPEAKERS ON located in the onscreen AUDIO menu.
2. Set amplifier volume to minimum.
3. Adjust TV volume to desired level.
4. Adjust amplifier volume to match the TV.
5. Select SPEAKERS OFF & VAO (Variable Audio Out) from AUDIO menu.
6. Volume and mute are now controlled using the TV controls.

Audio/Video Connection

TERMINALS ON BACK OF TV

AUDIO VIDEO

ANT

R ⊥ L

TO AUDIO AMP

VCR OR VIDEO DISC

S-VIDEO

INPUT 1

VIDEO OUT

L

AUDIO OUT

R

TERMINALS ON BACK OF VCR
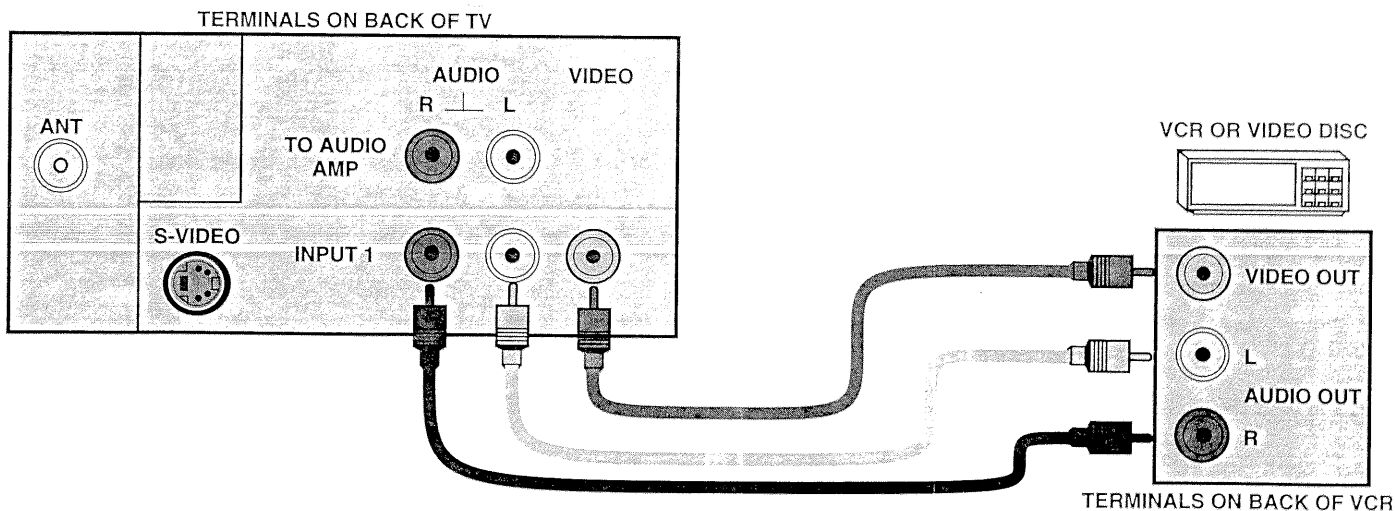
Operation

1. Connect optional equipment as shown to INPUT.
2. Select the Video mode by pressing the INPUT button.
3. Operate optional equipment (VCR-VDP) following their respective equipment manual.

NOTE: The S-VIDEO connection is optional and overrides other VIDEO connection. Use INPUT 1, AUDIO R and L with S-VIDEO connection.

Cable Box Connection

TERMINALS ON BACK OF TV

Incoming Cable
From Antenna or
Cable TV System
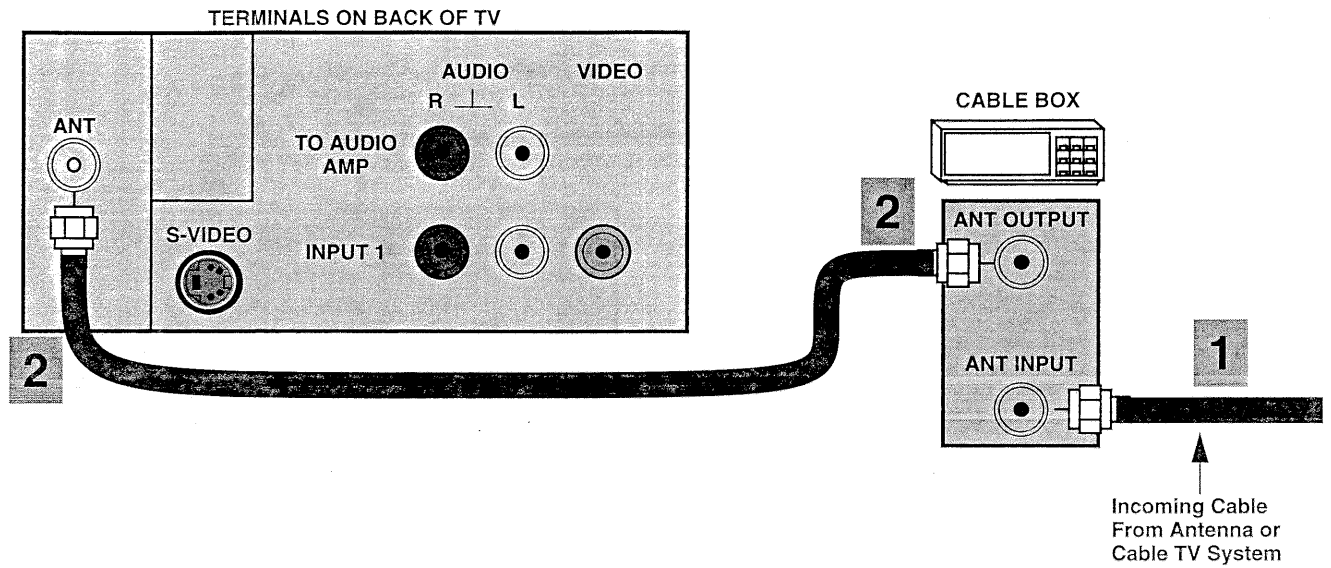
Operation

1. Connect incoming cable to cable box ANT INPUT.
2. Connect a cable from cable box ANT OUTPUT to TV ANT.

HITACHI

Front Control Panel

POWER VOL- VOL+ CH- CH+ MENU INPUT

(1) (2) (3) (4)(5)
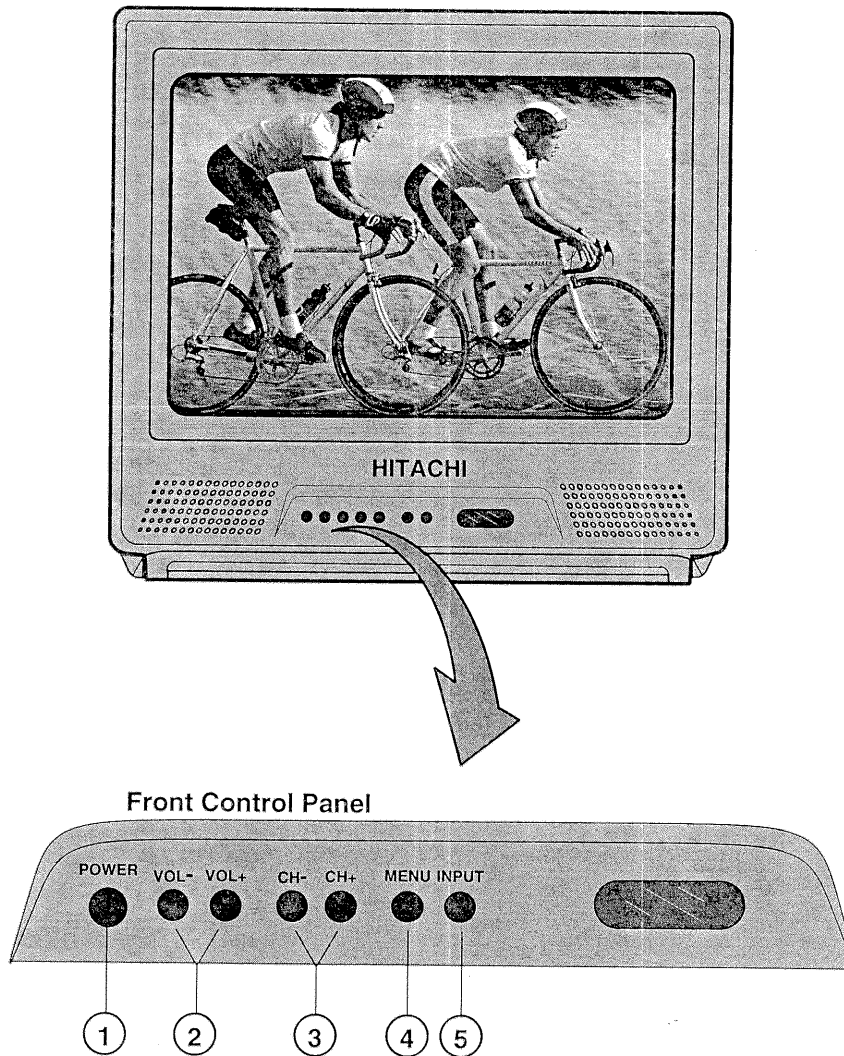
(1) **Power Button -** Press to turn ON or OFF.

(2) **VOL (Volume) Buttons -** Press to adjust sound level.

(3) **CH (Channel) -** Press to select programmed channels.

(4) **Menu Button -** Press to display main menu and access onscreen features or Adjustment menus.

(5) **Input Button -** Press to select TV or video input.

Power Button
Press to turn On or Off.

Mute Button
Press to mute sound. A second press resumes sound. Press also to toggle Closed Captioning.

Input Button
Press to select TV or video input.

Menu Button
Press to display main menu and access or exit onscreen features or Adjustment menus.

Recall Button
Press to display Time status of sleep timer, channel, video mode, channel I.D. and audio mode.

Precoded VCR Buttons
These buttons transmit the chosen precoded VCR codes.

Mode Buttons
These buttons allow the remote to control your TV, VCR, or cable box depending on which mode button is selected.

Channel Buttons
Press to select channels.

Keypad Buttons
Press desired channel number to access channel.

Volume Buttons
Press to adjust TV sound level.

LST-CH (Last Channel) Button
Press to switch to the previously tuned channel.
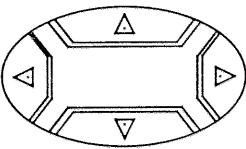
Sleep Button
Press to turn TV Off in 30, 60, or 90 minutes.

Cursor Button
Press to adjust Audio menus, Video menus, and select operating features when menus are displayed.

HITACHI
CLU-351U
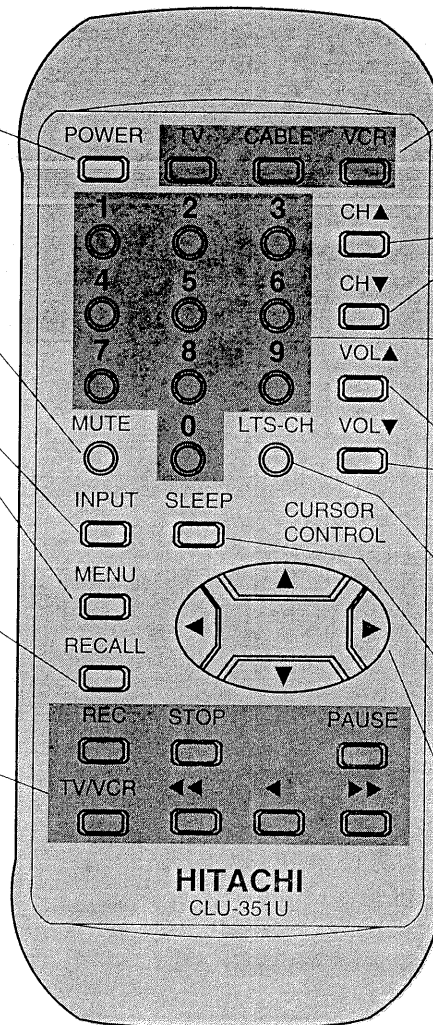
Remote Control Quick Reference Functional Key Chart

Key	Operates	
POWER	TV CABLE VCR	Turns TV On and Off Turns Cable Box On and Off Turns VCR On and Off
INPUT	TV	Selects the TV Input Mode
MENU	TV	Activates and Exits TV Menus
1 2 3 4 5 6 7 8 9 0	TV VCR CABLE	Selects Channel Selects code in Video Lock Menu Selects Channel in Channel I.D. Menu Selects Channel in Timer Menu Selects Precoded VCR codes when programming remote Selects Precoded CABLE codes when programming remote
RECALL	TV	Display Channel, Time, Channel I.D. and Audio Mode
(navigation pad)	TV	Menu Navigation
CH ▲ CH ▼	TV CABLE	Channel Up/Down Channel Up/Down
VOL ▲ VOL ▼	TV	Volume Up/Down

| Key	Operates	
SLEEP	TV	Selects 30, 60 or 90 minutes for Automatic Turn Off. Also use to turn Sleep Timer off by selecting NO
MUTE	TV	Mutes TV Audio Access and exit Closed Captioning
LST-CH	TV	Select previously tuned channel
Mode Selection Buttons TV CABLE VCR	TV CABLE VCR	Selects TV Mode for the remote control Selects Cable Mode for the remote control Selects VCR Mode for the remote control
Standard VCR Control Buttons REC	VCR	Record
◀◀	VCR	Rewind
▶▶	VCR	Fast Forward
▶	VCR	Play
STOP	VCR	Stop
PAUSE	VCR	Pause
TV/VCR	VCR CABLE	Selects TV or VCR Mode Selects A/B Mode

Operating the Precoded Function for Your VCR

This remote is designed to operate different types of VCRs. You must first program the remote to match the remote system in your VCR. (Refer to the VCR Code Index section.)

1. Turn on your VCR.
2. Aim the remote control at the front of your VCR.
3. Press the VCR button to switch to VCR precoded mode.
4. While holding down the VCR button, enter the 2-digit preset code that matches your VCR*. The remote will turn on your VCR when the correct 2-digit preset code is entered. When this occurs, the remote control is programmed for your VCR. If your VCR does not turn off after 5 seconds, try a different 2-digit preset code.
5. The remote will now control your VCR.

NOTES:

- If your VCR cannot be operated after performing the above procedures, this means that your VCR codes have not been precoded into the remote.

- In the unlikely event that your VCR cannot be operated after performing the above procedures, consult your VCR operating guide.

- The remote control will remember the codes you have programmed in until the batteries are removed. After replacing the batteries repeat the entire programming procedure stated above.

- If your VCR does not have a power function, the remote will issue the CHANNEL UP function.
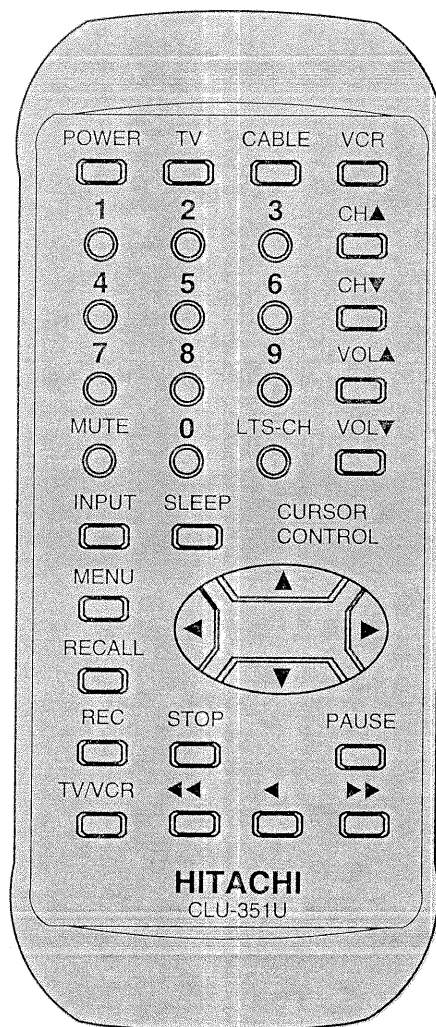
* (Codes are listed on page 14)

Operating the Precoded Function for Your Cable Box

1. Turn on your cable box.
2. Aim the remote control at the front of your cable box.
3. Press the cable box button to switch to cable box precoded mode.
4. While holding down the CABLE button, enter the 2-digit preset code that matches your cable box*. The remote will turn on your cable box when the correct 2-digit preset code is entered. When this occurs, the remote control is programmed for your cable box. If your cable box does not turn off after 5 seconds, try a different 2-digit preset code.
5. The remote will now control your cable box.

NOTES:

- If your cable box cannot be operated after performing the above procedures, this means that your cable box codes have not been precoded into the remote.

- In the unlikely event that your cable box cannot be operated after performing the above procedures, consult your cable box operating guide.

- The remote control will remember the codes you have programmed in until the batteries are removed. After replacing the batteries repeat the entire programming procedure stated above.

- If your cable box does not have a power function, the remote will issue the CHANNEL UP function.

- For some models, the remote control's channel ▲ and ▼ will control the cable box channel. The number buttons will control your television channel although you are in cable mode.

VCR and Cable Box Codes Index

The remote is capable of operating many brands of VCRs and cable boxes. You must first program the remote control to match the remote system in your VCR or cable box.

NOTE: The remote control memory is limited. Some models of VCRs or cable boxes may not operate. The remote control is not designed to control all features that are available in all models.

Code Index For VCRs

VCR Brand	Code (s)
Emerson	00,01,10,16,23,33, 37,40, 43
Funai	00
GE	09,22
Hitachi	00,14,15
JVC	14,26
Magnavox	09,12,28
Mitsubishi	16,23,26,45
Panasonic	09,35,46
RCA	15,22
Sony	06,07,08,09
Toshiba	16,17,42
Zenith	07,08,12

Code Index for Cable Boxes

Cable Box Brand	Code(s)
G.I.	09
Jerrold	03, 09, 10, 12, 13, 51
Magnavox	40
Philips	40
Pioneer	39
Samsung	39
Scientific Atlantic	04, 06, 14, 52, 56
Zenith	00

LST-CH - Pressing ⬤ (LST-CH) switches between the last two channels selected from numeric keypad.

NOTE: When scanning channels with the CHANNEL ▲ or ▼ button, pressing the LST-CH button switches between the last two channels scanned.
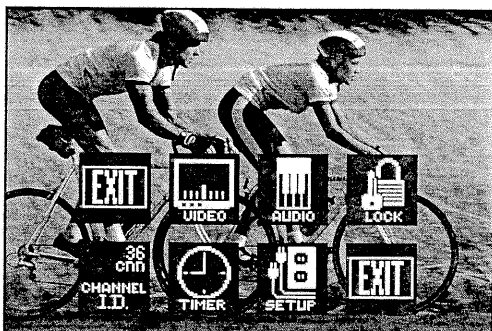
CHANNEL NOW
BEING VIEWED

CHANNEL
PREVIOUSLY VIEWED

Press Button →

← Press Button Again
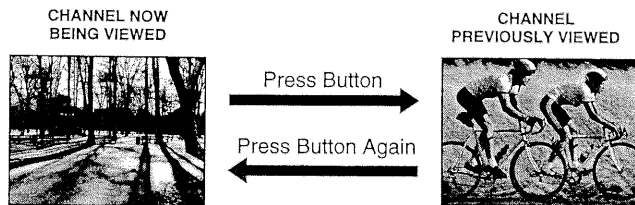
Recall - Press ▢ (RECALL) to review:

(1) Audio Mode Status

(2) CH Number or Video Input Selected

(3) Channel I.D. (Station Identifier)

(4) Clock Time

(5) Sleep Timer Status

```
STEREO              CH 3
                    KXYZ (3)


29                  5:25
```
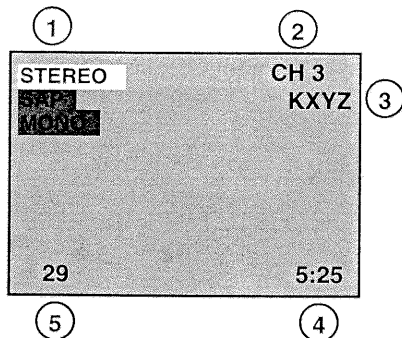
Main Menu

▢ (MENU) Display and Exit Menus
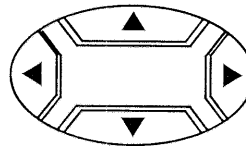
Cursor Button ▲ or ▼
Highlight Desired Feature when Menu is Displayed

Cursor Button ◄ or ►
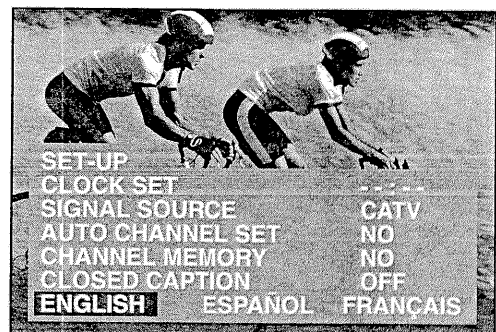Selects or Adjusts Features when Menu is Displayed

Cursor Buttons

Located on remote control

1. Press ▢ (MENU).
2. Press CURSOR ▲ or ▼ and ◄ or ► to select the desired icon.
3. Press ▢ (MENU) after selecting the desired icon to access sub menus.
4. Press ▢ (MENU) twice to exit sub menus.

Menu Language Selection

The menu language is factory set to ENGLISH. Follow the instructions to change the menu language to SPANISH, FRENCH and back to ENGLISH.

1. Press ▢ (MENU).
2. Press CURSOR ▲ or ▼ and ◄ or ► to highlight the Set-Up icon.
3. Press ▢ (MENU) to display the Set-Up menu.

```
SET-UP
CLOCK SET              - - : - -
SIGNAL SOURCE         CATV
AUTO CHANNEL SET      NO
CHANNEL MEMORY        NO
CLOSED CAPTION        OFF
ENGLISH    ESPAÑOL   FRANÇAIS
```

4. Press CURSOR ▲ or ▼ to highlight ENGLISH ESPAÑOL, FRANÇAIS.
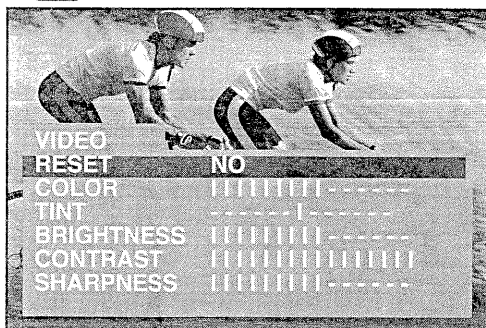5. Press CURSOR ◄ or ► to select ENGLISH, ESPAÑOL or FRANÇAIS.
6. Press ▢ (MENU) twice to exit menus.

Video Adjustments

Reset

Use to reset Color, Tint, Brightness, Contrast and Sharpness adjustments back to a factory preset level.

MENU
1. Press ◯.
2. Press CURSOR ▲ or ▼ and ◄ or ► to highlight the Video icon.

MENU
3. Press ◯ to display the Video Adjustment menu.

4. Press CURSOR ▲ or ▼ to highlight RESET.
5. Press CURSOR ◄ or ► to select "SET" to normalize Color, Tint, Brightness, Contrast, and Sharpness.

MENU
6. Press ◯ twice to exit menus.

Color, Tint, Brightness, Contrast and Sharpness Adjustments

MENU
1. Press ◯.
2. Press CURSOR ▲ or ▼ and ◄ or ► to highlight the Video icon.

MENU
3. Press ◯ to display the Video Adjustment menu.
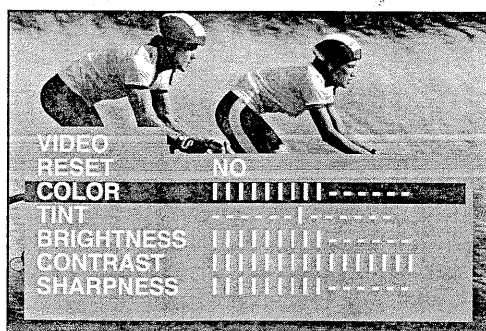
4. Press CURSOR ▲ or ▼ to select the desired Video Adjustment (Color, Tint, Brightness, Contrast or Sharpness).
5. Press CURSOR ◄ or ► to adjust your selection. (The Selected Video Adjustment will be displayed.)

6. Repeat steps 4 and 5 for the remaining Picture Adjustments.

MENU
7. Press ◯ twice to exit menus.

Note:

COLOR - Adjust for desired color intensity.

TINT - Adjust for natural flesh tones.

BRIGHTNESS - Adjust so dark areas of picture slightly become black for a crisp details.

CONTRAST - Adjust the white areas of the picture as desired.

SHARPNESS - Adjust for best clarity of outline detail.

Audio Adjustments

Mode

When Audio is broadcast in Stereo or SAP, an On-Screen display will appear on initial "Turn On". The available choices will be highlighted.

MENU
1. Press ◯.
2. Press CURSOR ▲ or ▼ and ◄ or ► to highlight the Audio icon.

MENU
3. Press ◯ to display the Audio Adjustment menu.
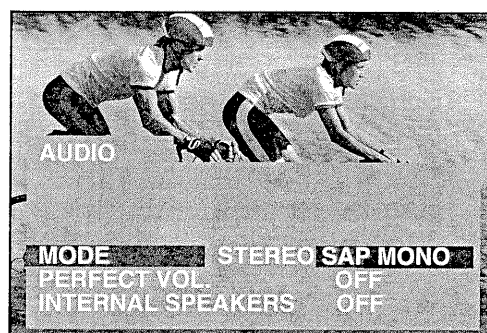
4. Press CURSOR ◄ or ► to select STEREO, SAP (second audio program), or MONO. The selected mode will be highlighted.

MENU
5. Press ◯ twice to exit menus.

Note:

STEREO - Two channel audio reception.

SAP - Second Audio Programming (such as bilingual audio, weather reports, etc.).

MONO - Used when stereo signal is weak.

PERFECT VOL - Automatically adjusts the volume so each channel has the same average volume.

Internal Speakers

1. This feature is used to turn the internal speakers "ON" or "OFF". It is used when the TV is connected to an external audio amplifier. (Refer to "To Audio Amp Connection section for further information.)

MENU
1. Press 〇.
2. Press CURSOR ▲ or ▼ and ◄ or ► to highlight the Audio icon.

MENU
3. Press 〇 to display the Audio Adjustment menu.

4. Press CURSOR ▲ or ▼ to select INTERNAL SPEAKERS.
5. Press CURSOR ◄ or ► to select ON, OFF&VAO or OFF&FAO.
6. ON - TV SPEAKERS operate normally.
7. OFF&VAO (Variable Audio Output) - TV SPEAKERS off, the sound output varies according to the TV volume. Use the TV remote to control the volume, muting, bass, treble and balance of the External Amplifier System.
8. OFF&FAO (Fixed Audio Output) - TV SPEAKERS off, sound output is not adjustable. The audio is controlled by the External Amplifier System volume control.

MENU
Press 〇 twice to exit menus.

Lock

Quick Lock

Prevents video games and other video sources from being viewed. Channel 3, 4 and video inputs are locked out for 12, 24, 48 hours or ALWAYS.

NOTE: Be sure to understand this feature before attempting its use. **Use a code that you will easily remember or write the code on a piece of paper.**

MENU
1. Press 〇.
2. Press CURSOR ▲ or ▼ and ◄ or ► to highlight the Lock icon.

MENU
3. Press 〇 to display the Quick Lock menu.

4. "ENTER SECRET CODE" should already be highlighted. Use the numeric keypad to enter a four-digit code.
5. Press CURSOR ► to select OFF or ON for Quick Lock Setting.
6. Press CURSOR ▼ to highlight HOW LONG?.
7. Press CURSOR ► to select the desired amount of time (12, 24, 48 hours or ALWAYS) for Quick Lock to be activated.

MENU
8. Press 〇 twice to exit menus.

To unlock QUICK LOCK follow steps 1 through 6, and on step 6 select NO.

Note:

If you do not remember your code, LOCK will unlock in 12, 24, or 48 hours, depending on the current setup. Be cautious when selecting ALWAYS. If ALWAYS is selected and you forget your secret code, the TV must be serviced by a qualified technician to clear the LOCK setup.

NOTE: If QUICK LOCK is selected, and if a blocked channel or video input is selected, the message QUICK LOCK displays in the upper right corner of the TV screen.

For more information about Movie Rating and TV Rating, see Hitachi Child Lock reference guide.
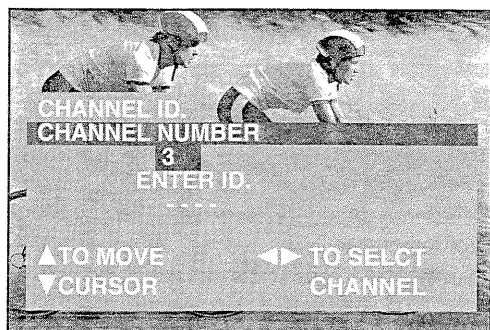
Channel I.D.

This feature allows you to enter the call names of up to 30 stations into memory (using up to 4 characters for each station). The I.D. name will then display along with the channel number when changing channels or pressing RECALL.

CH 03 ◄— Channel I.D
KXYZ
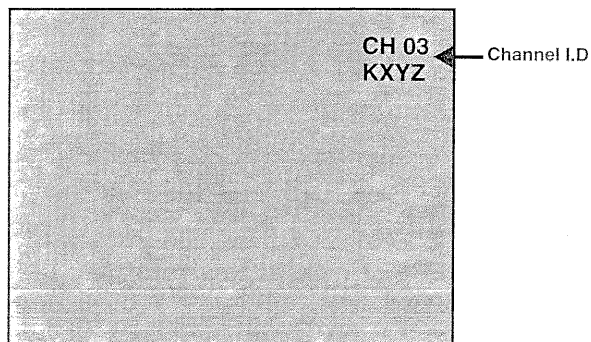
MENU
1. Press [O].
2. Press CURSOR ▲ or ▼ and ◄ or ► to highlight the Channel I.D. icon.

MENU
3. Press [O] to display the Channel I.D. menu.

CHANNEL ID.
CHANNEL NUMBER
3
ENTER ID.
- - - -
▲ TO MOVE   ◄► TO SELCT
▼ CURSOR   CHANNEL

4. Press CURSOR ◄ or ► or use the remote control Keypad to enter the channel number you wish to assign a channel identifier.
5. Press CURSOR ▼ to highlight ENTER I.D.
6. Press CURSOR ◄ or ► to select first character in channel identifier. Then press cursor ▼ to move cursor to the second position and repeat until the complete channel identifier is entered (up to 4 characters).
7. Press CURSOR ▲ or ▼ to highlight CHANNEL NUMBER. Then repeat steps 4 through 6 to continue adding Channel Identifier(s).

MENU
8. Press [O] twice to exit menus.
NOTE: To delete a Channel I.D. (Station Identifier) from memory all four characters positions in the "ENTER I.D." area must display a dash mark (-).

Note:

When the maximum amount of channel identifiers are entered, "FULL" will display in the caption position.

Timer Features

Sleep Timer

This feature is used for automatic turn off in 30, 60 or 90 minutes. Display will flash 3, 2 and 1 to indicate the last three remaining minutes prior to turn off. The recall display will also appear.

MENU
1. Press [O].
2. Press CURSOR ▲ or ▼ and ◄ or ► to highlight the Timer icon.

MENU
3. Press [O] to display the Timer Control menu.

EVENT PROGRAM
SLEEP   NO
PROGRAM EVENT
ON   - - : - -
OFF   - - : - -
CHANNEL   3
SET   NO

4. Press CURSOR ►, to select NO, 30, 60 or 90 minutes (Sleep timer will be activated).

MENU
5. Press [O] twice to exit menus.
NOTE: To deactivate Sleep TImer repeat steps 1 through 4. In step 4 select "NO" instead of minutes.

Note:

Press the RECALL button to display the remaining minutes for Sleep Timer, the status will display in the bottom left corner.

Special Feature:

Automatic turn "OFF" after 90 minutes. The TV has a special feature that will shut itself **OFF** after 90 minutes when turned **ON** by the program event unless a function key is pressed during the 90 minutes.

This feature is useful so that the TV will not remain **ON** unattended for an extended period of time.

Programming the **OFF** timer will cancel the automatic **OFF** special feature.
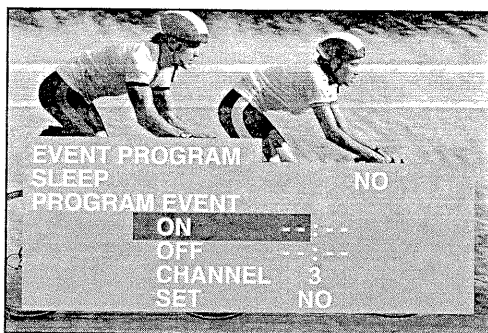
Event Program

This feature is capable of turning the TV on, tuned to a desired channel and off a predetermined time (one day or daily). The clock must be set for these features to operate. (Refer to the Set-Up menu to set time.)

1. Press MENU ⬜.
2. Press CURSOR ▲ or ▼ and ◄ or ► to highlight the Timer icon.
3. Press MENU ⬜ to display the Timer Control menu.

4. Press CURSOR ▼ to highlight ON (time).
5. Press CURSOR ◄ or ► repeatedly to set hours (Set AM or PM accordingly).
6. Press CURSOR ▼ to highlight the minutes position.
7. Press CURSOR ◄ or ► repeatedly to set minutes.
8. Press CURSOR ▼ to highlight OFF (time).

9. Repeat steps 5 through 7 for setting OFF (time).
10. Press CURSOR ▼ to highlight CHANNEL.

11. Press CURSOR ◄ or ► or use the remote control Keypad to enter the channel number desired when the set turns "ON".

12. Press CURSOR ▼ to highlight SET.
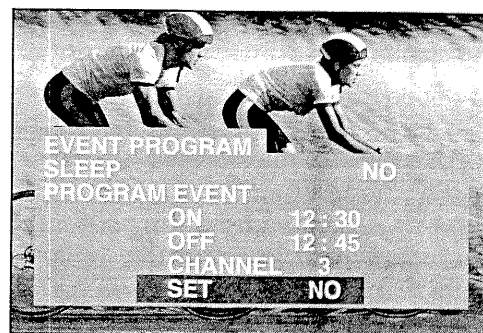
13. Press CURSOR ► to select:
- NO - not activated
- ONE DAY - activated
- DAILY - activated

14. Press MENU ⬜ twice to exit menus.

NOTE: To deactivate Event Program select NO in step 13.

Note:

If the Program Event "ON" functions while the set is operating, the set will automatically tune to the channel designated in the Timer Program.
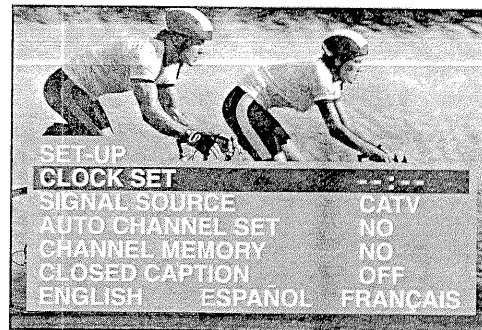
Set-Up Features

Clock Set

Clock (when set) will display onscreen at initial "Turn On", after a channel change and when pressing the RECALL button. The time must be set first in order to operate the Event Program Timer.

1. Press MENU ⬜.
2. Press CURSOR ▲ or ▼ and ◄ or ► to highlight the Set-Up icon.
3. Press MENU ⬜ to display the Set-Up menu.

4. Press CURSOR ◄ or ► to set hours (Set AM/PM accordingly).
5. Press CURSOR ▼ to select minutes position.
6. Press CURSOR ◄ or ► repeatedly to set minutes.
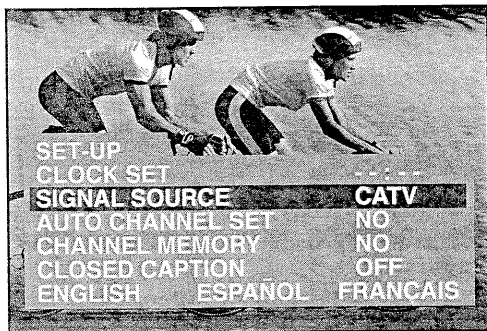7. Press MENU ⬜ twice to exit menus.

Special Functions

Signal Source

The proper input mode must be selected for the type of signal at the antenna input.

- Antenna mode is used when the television is not connected to a cable TV system, for example when using a VHF/UHF antenna (channels 02 - 69).
- CATV mode is used when the television is connected to a Cable TV system and you are not using a cable company converter box (channels 01 - 125).

1. Press MENU.
2. Press CURSOR ▲ or ▼ and ◄ or ► to highlight the Set-Up icon.
3. Press MENU to display the Set-Up menu.

4. Press CURSOR ▲ to highlight SIGNAL SOURCE.
5. Press CURSOR ◄ or ► to select ANTENNA (TV) or CATV.
6. Press MENU twice to exit menus.

Auto Channel Set

These feature allows you to place all channels with a video signal into Channel Scan Memory.

1. Press MENU.
2. Press CURSOR ▲ or ▼ and ◄ or ► to highlight the Set-Up icon.
3. Press MENU to display the Set-Up menu.
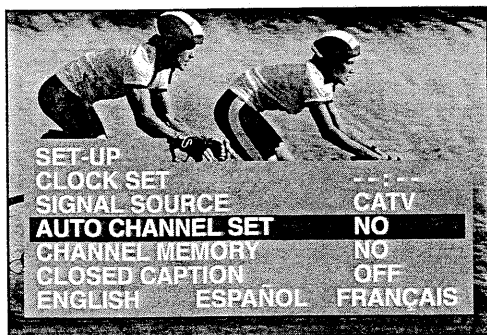
4. Press CURSOR ▼ to highlight AUTO CHANNEL SET.

5. Press CURSOR ◄ or ► to start Auto Programming. Channels will automatically advance until all channels have been scanned.
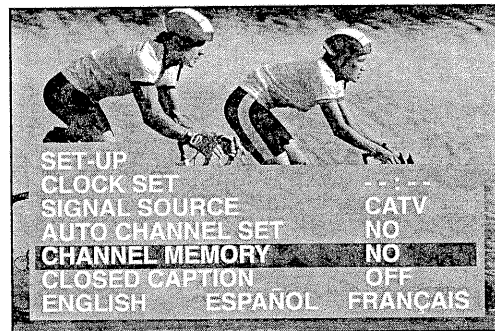
NOTE: These feature is disabled when Quick Lock is activated.

6. Press MENU twice after completion of Auto Programming to exit menus.

Channel Memory

This feature allows you to select which channels are placed into Channel Scan Memory.

1. Press MENU.
2. Press CURSOR ▲ or ▼ and ◄ or ► to highlight the Set-Up icon.
3. Press MENU to display the Set-Up menu.

4. Press CURSOR ▼ to highlight CHANNEL MEMORY.
5. Press CURSOR ◄ or ► to display the Channel Memory menu.

NOTE: These feature is disabled when Quick Lock is activated.

6. Use the CURSOR ◄ or ► or use the keypad "0 through 9" buttons to select channels.
7. Press CURSOR ► to **add** channel(s) to memory (Cyan). Press CURSOR ◄ to **delete** channels from memory (Yellow).
8. Repeat steps 6 and 7 to continue adding or deleting channels.
9. Press MENU twice to exit menus.

Closed Caption

This television has a built-in decoder that provides a visual depiction of the audio portion of a television program, in the form of written words across the screen (White or colored letters on a black background). It allows the viewer to read the dialogue of a television program or other information.

When Closed Caption is in the OFF mode:
The viewer may display closed caption by pressing
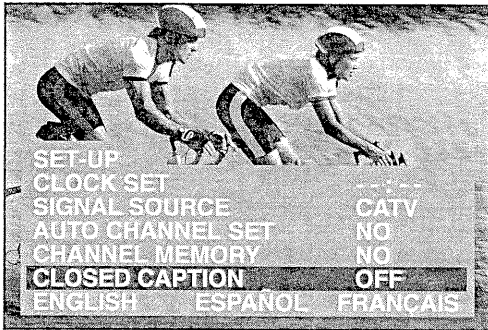
MUTE
◯ **on the remote control. Press again to delete.**

MENU
1. Press ▢.
2. Press CURSOR ▲ or ▼ and ◀ or ▶ to highlight the Set-Up icon.

MENU
3. Press ▢ to display the Set-Up menu.

4. Press CURSOR ▼ to highlight CLOSED CAPTION.
5. Press CURSOR ▶ to select OFF, C1 or C2.
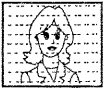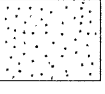
MENU
6. Press ▢ twice to exit menus.

Troubleshooting Chart

Before you call for service, determine the symptoms and make a few simple checks shown below.

Symptoms		Check
Picture	**Sound**	
SNOWY PICTURE	NOISY SOUND	- ANTENNA LOCATION AND/OR CONNECTION
MULTIPLE IMAGE	NOISY SOUND	- ANTENNA DIRECTION AND/OR LOCATION - ANTENNA LEAD-IN WIRE
INTERFERENCE	NOISY SOUND	- ELECTRICAL APPLIANCES, LIGHTS, CARS, AND TRUCKS - DIATHERMY AND OTHER MEDICAL EQUIPMENT
NORMAL PICTURE	NO SOUND	- VOLUME CONTROL SETTING - MUTE CONTROL (IF APPLICABLE) - TRY ANOTHER CHANNEL - TV SPEAKERS OFF
NO VIDEO	NOISY SOUND	- TV OR CABLE TUNING MODE SET TO PROPER SETTING - ANTENNA INPUT CORRECT (IF APPLICABLE)
NO PICTURE	NO SOUND	- CHECK THAT AC POWER CORD IS PLUGGED INTO AC OUTLET - BRIGHTNESS AND AUDIO CONTROLS SET PROPERLY - TRY ANOTHER CHANNEL
NO COLOR	NORMAL SOUND	- COLOR CONTROL SETTINGS - TRY ANOTHER CHANNEL
BLACK PICTURE	NO SOUND	- RECEIVER IN VIDEO MODE WITH NO SIGNAL

Specifications

Power Source: 120V CA, 60Hz,

Channel Capability: 181 channels (See chart)
VHF 2~13, UHF 14~69,
Cable 125 channels

Video Input Jacks: 1V p-p, 75 ohm, phono jack type

Audio Input Jacks: 500mV rms 47K ohm

To Audio AMP Jacks: 0~2.0V rms 4.7K ohm

Stereo Sound

Closed Caption Display

Specifications are subject to change without notice or obligation.

Channel Capability Chart

BAND	CHANNELS
VHF	12
UHF	56
CABLE (Mid - Band)	15
CABLE (Super Band)	14
CABLE (Hyper Band)	28
CABLE (Ultra Band)	56
TOTAL CHANNELS	**181**

service hotline

To locate an authorized HITACHI service facility in the continental U.S.A. and Canada,

DIAL TOLL FREE

7 days a week, 24 hours a day

800 HITACHI

(1-800-448-2244)

HITACHI AMERICA, LTD.
HOME ELECTRONICS DIVISION

Hitachi has made every effort to assure you hours of trouble free operation from your unit, however, should your television require service, a network of Hitachi Authorized Service Facilities has been established in all 50 states and Puerto Rico. Each facility will provide convenient and expedient assistance. Our service hotline operator will direct you to the Hitachi Authorized Service Facility nearest you. Just present proof of purchase and/or delivery receipts to the Hitachi Authorized Service Facility, and service will be rendered in accordance with the terms of the limited warranty as stated on your warranty card or operating guide.

Should you have any questions regarding warranty service, operation or technical assistance, please contact:

Hitachi Home Electronics (America), Inc.
1855 Dornoch Court
San Diego, CA 92154

In Canada, please contact : 1- 800 - HITACHI
(1- 800 - 448-2244)

Hitachi (HSC) Canada Inc.
6740 Campobello Road
Mississauga, Ont. L5N 2L8

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